

WHAT IS CLAIMED IS:

1. A cleaning device comprising:  
a cleaning member contactable to a moving  
image bearing member to clean a surface of the image  
5 bearing member;  
holding means for holding said cleaning  
member;  
vibrating means which is vibratable;  
wherein said holding means this movable  
10 toward and away from said image bearing member, and  
wherein said vibrating means is supported on  
said holding means.
2. A device according to Claim 1, wherein said  
15 vibrating means includes driving means for rotating a  
shaft of vibrating means and a weight mounted to  
mounting said shaft of vibrating means such as to  
provide a position of a gravity center defeated from a  
center of rotation of said shaft of vibrating means.
- 20 3. A device according to Claim 2, wherein said  
vibrating means includes a cover accommodating said  
driving means and said weight.
- 25 4. A device according to Claim 1, wherein a  
plurality of such vibrating means are arranged in a  
direction perpendicular to a moving direction of the

surface of said image bearing member.

5        5. A device according to Claim 4, wherein said  
vibrating means are positioned substantially at  
symmetric positions with respect to a center of a  
length measured in the perpendicular direction.

10       6. A device according to Claim 1, wherein said  
holding means is swingable about a rotational axis of  
holding means directed perpendicularly to a moving  
direction of said image bearing member and about a  
substantial center of a length of said holding means  
measured in a direction perpendicular to a moving  
direction of said image bearing member.

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      7. A device according to Claim 2, wherein said  
holding means is swingable about a rotational axis of  
holding means directed perpendicularly to a moving  
direction of said image bearing member, and said shaft  
20 of vibrating means extends substantially parallel with  
a rotational axis of holding means.

      8. A device according to Claim 7, wherein a  
plurality of such vibrating means are arranged in a  
25 direction perpendicular to a moving direction of said  
image bearing member in said holding means, and  
rotational directions of shafts of at least two

vibrating means are different from each other.

9. A device according to Claim 1, wherein said  
cleaning member has an impact resilience which is not  
5 less than 10% and not more than 40%.

10, a device according to Claim 9, wherein  
said cleaning member is made of urethane elastomer.

11. A device according to Claim 9, wherein said  
10 impact resilience is values measured at a temperature  
of said cleaning member when said apparatus is used.

12. A device according to Claim 1, wherein said  
cleaning member is detachably mountable to said  
15 holding means.

13. An image forming apparatus comprising:  
a movable image bearing member;  
image forming means for forming an image on  
20 said image bearing member;  
a cleaning member contacted to said image  
bearing member to clean a surface of said image  
bearing member;  
holding means for holding said cleaning  
25 member;  
vibrating means which is vibratable;  
wherein said holding means this movable

toward and away from said image bearing member, and  
wherein said vibrating means is supported on  
said holding means.

5        14. A device according to Claim 13, wherein said  
vibrating means includes driving means for rotating a  
shaft of vibrating means and a weight mounted to  
mounting said shaft of vibrating means such as to  
provide a position of a gravity center defeated from a  
10       center of rotation of said shaft of vibrating means.

15       15. A device according to Claim 14, wherein said  
vibrating means includes a cover accommodating said  
driving means and said weight.

16. A device according to Claim 13, wherein a  
plurality of such vibrating means are arranged in a  
direction perpendicular to a moving direction of the  
surface of said image bearing member.

20       17. A device according to Claim 16, wherein 5. A  
device according to Claim 4, wherein said vibrating  
means are positioned substantially at symmetric  
positions with respect to a center of a length  
25       measured in the perpendicular direction.

1-8. A device according to Claim 13, wherein  
said holding means is swingable about a rotational

axis of holding means directed perpendicularly to a  
moving direction of said image bearing member and  
about a substantial center of a length of said holding  
means measured in a direction perpendicular to a  
5 moving direction of said image bearing member.

19. A device according to Claim 14, wherein said  
holding means is swingable about a rotational axis of  
holding means directed perpendicularly to a moving  
10 direction of said image bearing member, and said shaft  
of vibrating means extends substantially parallel with  
a rotational axis of holding means.

20. A device according to Claim 19, wherein a  
15 plurality of such vibrating means are arranged in a  
direction perpendicular to a moving direction of said  
image bearing member in said holding means, and  
rotational directions of shafts of at least two  
vibrating means are different from each other.

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21. A device according to Claim 13, wherein said  
cleaning member has an impact resilience which is not  
less than 10% and not more than 40%.

22. A device according to Claim 21, wherein said  
25 cleaning member is made of urethane elastomer.

23, a device according to Claim 21, wherein

said impact resilience is values measured at a temperature of said cleaning member when said apparatus is used.

5           24. A device according to Claim 23, further comprising heating means for temperature control for said image bearing member in a range not lower than 30°C and not higher than 49°C.

10           25. A device according to Claim 13, wherein said cleaning member is detachably mountable to said holding means.

15           26. A device according to Claim 13, wherein said vibrating means is operated when no image forming operation is carried out.

20           27. A device according to Claim 26, wherein said vibrating means operates when said image bearing member not rotating.